

TABLE 1—CLASSIFICATION CODES

Description of substances or article to be classified	Compat- ibility group	Classi- fication code
Primary explosive substance .....	A	1.1A
Article containing a primary explosive substance and not containing two or more effective protective fea- tures. Some articles, such as detonators for blasting, detonator assemblies for blasting and primers, cap-type, are included, even though they do not contain primary explosives..	B	1.1B
		1.2B
		1.4B
		1.1C
Propellant explosive substance or other deflagrating explosive substance or article containing such explo- sive substance.	C	1.2C
		1.3C
		1.4C
		1.1D
Secondary detonating explosive substance or black powder or article containing a secondary detonating explosive substance, in each case without means of initiation and without a propelling charge, or article containing a primary explosive substance and containing two or more effective protective features.	D	1.2D
		1.4D
		1.5D
		1.1E
Article containing a secondary detonating explosive substance, without means of initiation, with a propel- ling charge (other than one containing flammable liquid or gel or hypergolic liquid).	E	1.2E
		1.4E
		1.1F
Article containing a secondary detonating explosive substance with its means of initiation, with a propel- ling charge (other than one containing flammable liquid or gel or hypergolic liquid) or without a propel- ling charge.	F	1.2F
		1.3F
		1.4F
		1.1G
Pyrotechnic substance or article containing a pyrotechnic substance, or article containing both an explo- sive substance and an illuminating, incendiary, tear-producing or smoke-producing substance (other than a water-activated article or one containing white phosphorus, phosphide or flammable liquid or gel or hypergolic liquid).	G	1.2G
		1.3G
		1.4G
		1.2H
Article containing both an explosive substance and white phosphorus .....	H	1.3H
Article containing both an explosive substance and flammable liquid or gel .....	J	1.1J
		1.2J
		1.3J
Article containing both an explosive substance and a toxic chemical agent .....	K	1.2K
		1.3K
		1.1L
Explosive substance or article containing an explosive substance and presenting a special risk (e.g., due to water-activation or presence of hypergolic liquids, phosphides or pyrophoric substances) needing iso- lation of each type.	L	1.2L
		1.3L
		1.6N
Articles containing only extremely insensitive detonating substances. ....	N	1.6N
Substance or article so packed or designed that any hazardous effects arising from accidental functioning are limited to the extent that they do not significantly hinder or prohibit fire fighting or other emergency response efforts in the immediate vicinity of the package.	S	1.4S

TABLE 2—SCHEME OF CLASSIFICATION OF EXPLOSIVES, COMBINATION OF HAZARD DIVISION WITH  
COMPATIBILITY GROUP

Hazard division	Compatibility group													
	A	B	C	D	E	F	G	H	J	K	L	N	S	A-S
1.1	1.1A	1.1B	1.1C	1.1D	1.1E	1.1F	1.1G	.....	1.1J	.....	1.1L	.....	.....	9
1.2	.....	1.2B	1.2C	1.2D	1.2E	1.2F	1.2G	1.2H	1.2J	1.2K	1.2L	.....	.....	10
1.3	.....	.....	1.3C	.....	.....	1.3F	1.3G	1.3H	1.3J	1.3K	1.3L	.....	.....	7
1.4	.....	1.4B	1.4C	1.4D	1.4E	1.4F	1.4G	.....	.....	.....	.....	.....	1.4S	7
1.5	.....	.....	.....	1.5D	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
1.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.6N	.....	1
1.6	1	3	4	4	3	4	4	2	3	2	3	1	1	35

[Amdt. 173-224, 55 FR 52617, Dec. 21, 1990, as amended by Amdt. 173-241, 59 FR 67492, Dec. 29, 1994; 64 FR 51918, Sept. 27, 1999; 66 FR 45379, Aug. 28, 2001]

**§ 173.53 Provisions for using old classi-  
fications of explosives.**

Where the classification system in ef-  
fect prior to January 1, 1991, is ref-  
erenced in State or local laws, ordi-

nances or regulations not pertaining to  
the transportation of hazardous mate-  
rials, the following table may be used  
to compare old and new hazard class  
names:

Current classification	Class name prior to Jan. 1, 1991
Division 1.1 .....	Class A explosives.
Division 1.2 .....	Class A or Class B explosives.

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Current classification	Class name prior to Jan. 1, 1991
Division 1.3 .....	Class B explosive.
Division 1.4 .....	Class C explosives.
Division 1.5 .....	Blasting agents.
Division 1.6 .....	No applicable hazard class.

**§ 173.54 Forbidden explosives.**

Unless otherwise provided in this subchapter, the following explosives shall not be offered for transportation or transported:

- (a) An explosive that has not been approved in accordance with §173.56 of this subpart.
- (b) An explosive mixture or device containing a chlorate and also containing:
  - (1) An ammonium salt, including a substituted ammonium or quaternary ammonium salt; or
  - (2) An acidic substance, including a salt of a weak base and a strong acid.
- (c) A leaking or damaged package of explosives.
- (d) Propellants that are unstable, condemned or deteriorated.
- (e) Nitroglycerin, diethylene glycol dinitrate, or any other liquid explosives not specifically authorized by this subchapter.
- (f) A loaded firearm (except as provided in 49 CFR 1544.219).
- (g) Fireworks that combine an explosive and a detonator.
- (h) Fireworks containing yellow or white phosphorus.
- (i) A toy torpedo, the maximum outside dimension of which exceeds 23 mm (0.906 inch), or a toy torpedo containing a mixture of potassium chlorate, black antimony (antimony sulfide), and sulfur, if the weight of the explosive material in the device exceeds 0.26 g (0.01 ounce).
- (j) Explosives specifically forbidden in the §172.101 table of this subchapter.
- (k) Explosives not meeting the acceptance criteria specified in §173.57 of this subchapter.
- (l) An explosive article with its means of initiation or ignition installed, unless approved in accordance with §173.56.

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**§ 173.55 [Reserved]**

**§ 173.56 New explosives—definition and procedures for classification and approval.**

(a) Definition of new explosive. For the purposes of this subchapter a *new explosive* means an explosive produced by a person who:

- (1) Has not previously produced that explosive; or
- (2) Has previously produced that explosive but has made a change in the formulation, design or process so as to alter any of the properties of the explosive. An explosive will not be considered a “new explosive” if an agency listed in paragraph (b) of this section has determined, and confirmed in writing to the Associate Administrator, that there are no significant differences in hazard characteristics from the explosive previously approved.

(b) Examination, classing and approval. Except as provided in paragraph (j) of this section, no person may offer a new explosive for transportation unless that person has specified to the examining agency the ranges of composition of ingredients and compounds, showing the intended manufacturing tolerances in the composition of substances or design of articles which will be allowed in that material or device, and unless it has been examined, classed and approved as follows:

- (1) Except for an explosive made by or under the direction or supervision of the Department of Defense (DOD) or the Department of Energy (DOE), a new explosive must be examined and assigned a recommended shipping description, division and compatibility group, based on the tests and criteria prescribed in §§173.52, 173.57 and 173.58. The person requesting approval of the new explosive must submit to the Associate Administrator a report of the examination and assignment of a recommended shipping description, division, and compatibility group. If the Associate Administrator finds the approval request meets the regulatory criteria, the new explosive will be approved in writing and assigned an EX number. The examination must be performed by a person who is approved by the Associate Administrator under the